NS-205-IP67
5-Port Industrial 10/100 Mbps Ethernet Switch with IP67 Casing

Introduction:

NS-205-IP67 Ethernet Switches are designed for use in industrial waterproof/harsh environments. The rugged packaging and IP67 connectors guarantee a total protection that can withstand a variety of extreme conditions such as high temperatures, extreme shocks & vibrations, dust particles or even liquid immersion. They can be directly mounted to any machine or convenient flat surface. Even with all its rugged features, the switch still provides a high level of functionality, including the ability to support full-duplex communication and 10Mbps/100Mbps transmission speeds. With 1.4Gbps of total bandwidth, the switch can simultaneously handle full wire speed communication on each port. A dedicated uplink port enables a connection to other switches without use of a crossover cable. No programming is necessary, as the switch auto-learns network addresses. 10 to 30VDC isolated power input keeps spikes and surges on the power line from damaging the power supply. They are completely plug and play and ready to go right out of the box.

Features:

- Automatic MDI / MDI-X crossover for plug-and-play
- Each port supports both 10/100 Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- 1.4Gbps high performance memory bandwidth.
- Integrated look-up engine with dedicated 1 K unicast MAC addresses.
- Supports +10~+30Vdc voltage with 1KV isolation
- Supports operating temperatures from -40 ~ +80°C
- Plastic casing with IP67

Specifications:

Technology	
Standards	IEEE802.3, 802.3u, 802.3x
Packet Buffer Memory	256 KB
Processing Type	Store and Forward
Address Table Size	1K uni-cast addresses
Flow Control	IEEE802.3x flow control, back pressure flow control
Interface	
RJ45 ports	10/100BaseT(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDIX connection
LED Indicators	Power, 10/100M, Link/Act
Cable	10 Base-T (Cat.3, 4,5 UTP cable; 100m Max.)
	100 Base-TX (Cat.5 UTP cable; 100m Max.)
Power	
Input Voltage	+10 ~ +30Vdc (1KV isolation)
Power consumption	0.12A@24VDC, +/- 5% arrowed with 10M Full duplex.
	0.1A@24VDC, +/- 5% arrowed with 100M Full duplex
Mechanical	
Case	Plastic
Flammability	UL 94V-0 materials
Environmental rating	IP67 for Operating Temperature -10 °C~ +60°C
	IP66 for Operating Temperature -40 °C~ +80°C
Dimensions	85 x 126 x 75.5 mm (W x H x D)
Installation	Wall Mounting
Environmental	
Operating Temperature	-10 °C~ +60°C For IP67 Casing
	-40 °C~ +80°C For IP66 Casing
Storage Temperature	-40 ~ +85°C
Ambient Relative Humidity	100% RH with IP67 for Operating Temperature -10 °C~ +60°C

Ordering Information

NS-205-IP67	Unmanaged 5-Port Industrial Ethernet Switch
NS-205-IP67 CR	Unmanaged 5-Port Industrial Ethernet Switch (RoHS)

LED functions:

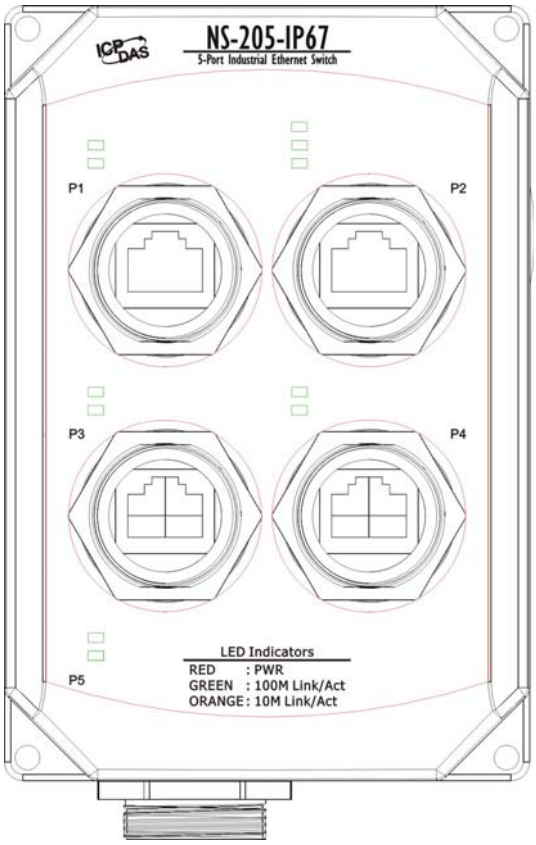
Standard RJ45 female connectors are provided. A standard RJ45 plug cable is all that is necessary to connect your device to the unit since switch that supports auto crossover. Table 1 shows the LED indicator functions. The module includes an internal.

Table 1

LED	Color	Description
PWR	Red	Power is On
	Off	Power is Off
10/100M (Port 1)	Orange	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 2)	Orange	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 3)	Orange	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 4)	Orange	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking
10/100M (Port 5)	Orange	Link to 10 Mbps
	Green	Link to 100 Mbps
	Off	Not Networking

Pin-Out:

Pin#	Signal Name	Function
1	TD+	Transmit Data
2	TD-	Transmit Data
3	RD+	Receive Data
4	NC	No Connection
5	NC	No Connection
6	RD-	Receive Data
7	NC	No Connection
8	NC	No Connection



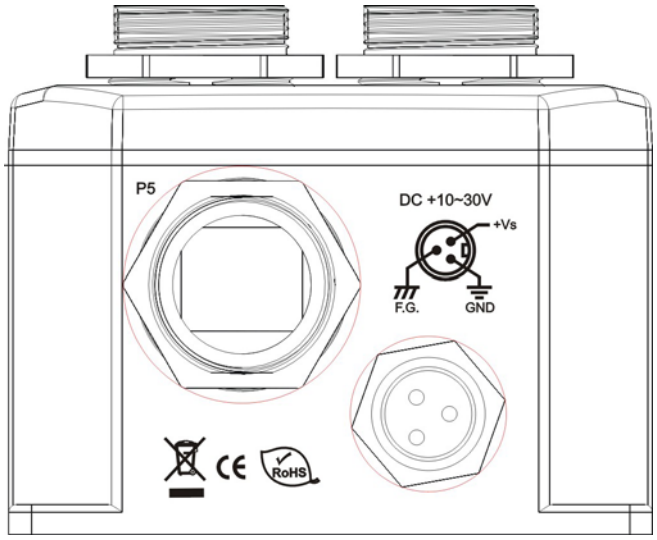
Pin Function for Terminal Block:

External power supply is connected using the removable terminal block:

+Vs : Power input (+10 to +30V) and should be connected to the power supply (+)

GND: Ground and should be connected to the power supply (-)

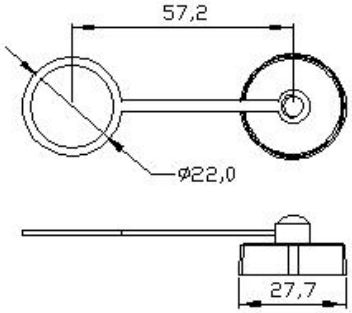
F.G. : F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.



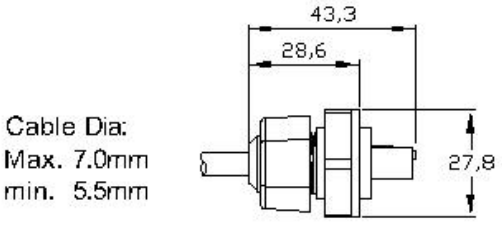
Installation:

Mechanical Dimensions

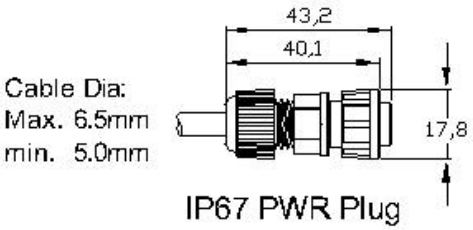
Unit : mm



IP67 Ethernet Cap with Tether

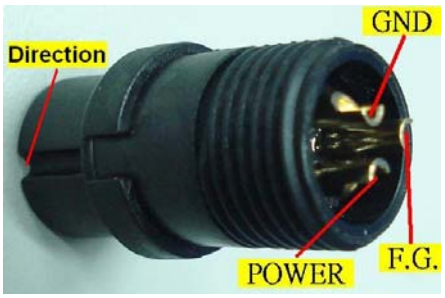


IP67 Ethernet Plug

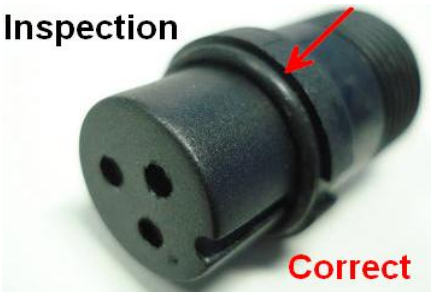


IP67 PWR Plug

Power Plug installed to waterproofing attachment.



Power Plug Wiring



Installed step:

Power Plug Assembly

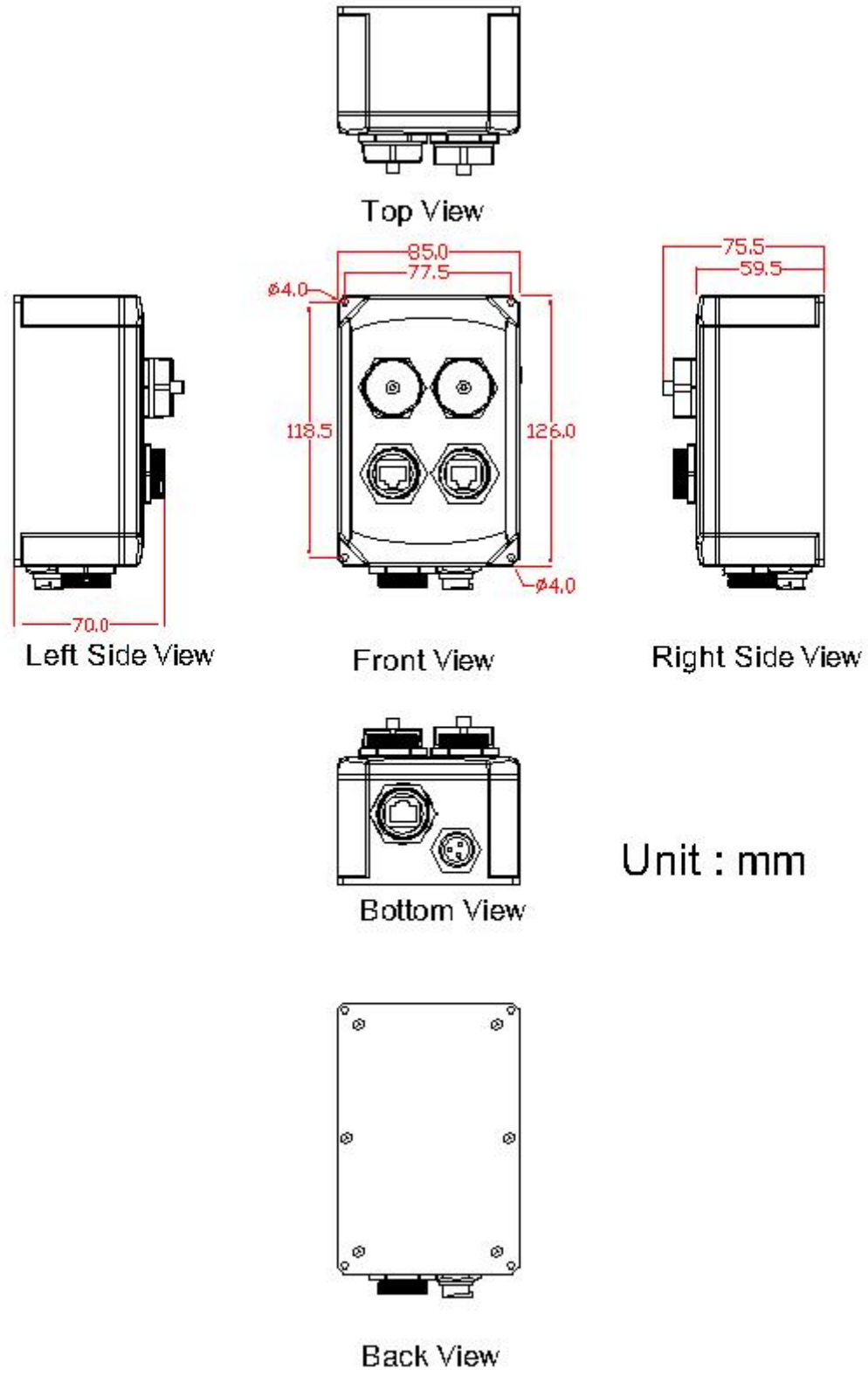
Important: Make sure to tighten firmly.

RJ45 Plug installed to waterproofing attachment.
Installed step:

RJ45 Plug Assembly

Important: Make sure to tighten firmly.

Dimensions:


Top View
85.0
77.5
ø4.0
118.5
126.0
ø4.0
75.5
59.5
70.0
Left Side View
Front View
Right Side View
Bottom View
Unit : mm
Back View